

REMARKS

In the Office Action, the Examiner rejected all pending claims 1-22, 24 and 25. By this paper, Applicants have amended claim 24. Upon entry of the amendment, claims 1-22, 24 and 25 will be pending in the present application and are believed to be in condition for allowance. In view of the foregoing amendment and the following remarks, Applicants respectfully request reconsideration and allowance of all pending claims.

Claim Rejection under 35 U.S.C. § 112

In the Office Action, the Examiner rejected claim 24 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner stated “[c]laim 24 recites the limitation ‘controller’ in line 2. There is insufficient antecedent basis for this limitation in the claim.” Office Action, page 2. Claim 24 has been amended, as indicated above, to obviate the Section 112 rejection. Specifically, claim 24, as amended, recites “The method, as set forth in claim 20, wherein transmitting the information packet to the access network unit comprises transmitting the information packet to a base station controller.” Accordingly, Applicants respectfully request withdrawal of the pending Section 112 rejection.

Claim Rejections under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 1, 2, 3, 4, 5, 8, 9, 10, 11, 17-21, 24 and 25 under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (U.S.

Publication No. 2003/0211859, hereafter referred to as “the Chen reference”) in view of Hata et al. (U.S. Publication No. 2002/0098845, hereafter referred to as “the Hata reference”); rejected claims 6 and 7 under 35 U.S.C. § 103(a) as being unpatentable over the Chen reference in view of the Hata reference as applied to claim 2 and further in view of Kowalski et al. (U.S. Patent No. 6,631,410, hereafter referred to as “the Kowalski reference”); rejected claims 12, 13, and 14 under 35 U.S.C. § 103(a) as being unpatentable over the Chen reference in view of the Hata reference as applied to claim 1 and further in view of Eilers et al. “Reradiation (Echo) Analysis of a Tapered Tower Section Supporting a Side-Mounted DTV Broadcast Antenna and Corresponding Azimuth Pattern” (hereafter referred to as “the Eilers reference”); rejected claims 15 and 16 under 35 U.S.C. § 103(a) as being unpatentable over the Chen reference in view of the Hata reference as applied to claim 1 and further in view of Ketonen (U.S. Patent No. 6,104,917, hereafter referred to as “the Ketonen reference”); and rejected claim 22 under 35 U.S.C. § 103(a) as being unpatentable over the Chen reference in view of the Hata reference as applied to claim 2 and further in view of Onweller et al. (U.S. Patent No. 6,931,102, hereafter referred to as “the Onweller reference”). Applicants respectfully traverse these rejections.

Legal Precedent

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (B.P.A.I. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce

the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 16 U.S.P.Q.2d. 1430 (Fed. Cir. 1990). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985).

The Cited References Fail to Teach or Suggest Every Feature of the Claims

Applicants respectfully assert that the Chen reference and the Hata reference, taken alone or in hypothetical combination, do not teach or suggest every element of the independent claims 1, 17, and 20. For example, independent claim 1 recites a “transceiver unit comprising ... a communication interface ... to facilitate communication *between the transceiver and an access network unit* over an undedicated public network, wherein the communication between the transceiver and the access network unit is independent of a dedicated connection.” (Emphasis added). Independent claim 17 recites “at least one routine for facilitating communication of information over an undedicated public network *between at least one base station...and a controller...located between the base station and a service network.*” (Emphasis added). Independent claim 20 recites

“receiving information from a transceiver unit via an air interface...processing the information to form an information packet suitable for transmission to an *access network unit* via an undedicated public network; and transmitting the information packet to the *access network unit* independent of a dedicated connection.” (Emphasis added).

In sharp contrast, neither of the cited references discloses the above-recited features. First, as conceded by the Examiner, the Chen reference fails to disclose the communication between the transceiver unit and the access network unit is independent of a dedicated network. (Office Action, page 3). Contrary to the Examiner’s assertion, however, the Hata reference does not cure the admitted deficiencies of the Chen reference. In the Office Action, the Examiner alleges that the wireless base station 104 of the Hata reference is equivalent to the “transceiver unit” of claim 1. Office Action, page 4. The Examiner then asserts that the server 102 of the Hata reference is the “access network unit” of claim 1 and 20, and the “controller” of claim 17. This assertion, however, is incorrect.

The Hata reference is directed to a system wherein a mobile terminal 101 communicates with a cash register 103 and a store server 102 via a wireless base station 104 and the Internet so that a user of the mobile terminal 101 may receive discount services. *See* FIG. 1; paragraph [0048]. Accordingly, most of the Hata reference is dedicated to an explanation of the operation and structure of particular embodiments of the mobile terminal 101. *See* paragraphs [0042]- [0054]. There is little discussion

regarding the server 102 or the wireless base station 104. It seems clear, however, that the server 102 is owned and operated by the service entity giving discounts to users of the mobile terminal 101 and that the server 102 does *not* control the wireless base station 104 or have any relation to the wireless base station 104. *See* FIG. 1; FIG. 7; paragraphs [0005]-[0007]. Indeed, it seems equally clear that the wireless base station 104 is a complete entity in the sense that it includes all of the components of a base station, such as an access network unit and a transceiver unit. In other words, the Hata reference does not disclose or suggest an Internet distributed access network structure as disclosed and claimed in the present application. As such, one having ordinary skill in the art would *not* equate the server 102 with the access network unit or controller as set forth in the claims.

More specifically, despite the fact that there is no discussion in the Hata reference of the structure and operation of the wireless base station 104, one of ordinary skill in the art would assume that the wireless base station 104 of the Hata reference would be construed as having both a transceiver unit and a base station controller. However, even if it is assumed that the Hata reference includes both a transceiver unit and a base station controller in the wireless base station 104, there is still no communication between the transceiver and the controller through an undedicated network. Rather, the only communication via an undedicated network, the Internet, is the communication between the base station 104 and the server 102, not between the controller and transceiver unit within the base station 104.

Furthermore, with particular regard to claim 20, the claim clearly calls for information to be processed into the form of a “packet” suitable for transmission via a public network *after* the information is received by a transceiver via an air interface. In other words, the “packet” is *not* transmitted over the air interface. In sharp contrast, the Chen reference repeatedly refers to the “packet” as being transmitted over the air interface 208 between the base station 204 and the mobile station 206. *See* Chen, paragraphs 22-26. Indeed, as discussed previously, because the mobile units 104/206 are communication devices that have an IP address, the “packets” *must* be transmitted over the air interface 208 in the Chen reference, otherwise the system described in the Chen reference would not operate. Therefore, the Chen reference clearly does not disclose the subject matter set forth in independent claim 20.

The Hata reference does not obviate this deficiency of the Chen reference. Specifically, as discussed above, the Hata reference only discloses communication between a server 102 and a mobile terminal 101 via wireless Internet access. *See* paragraph [0007]. The communication is facilitated by a wireless base station 104, however, no detail is given as to what form information received from the mobile device 101 arrives. Indeed, it appears that the wireless base station 104 receives data in packet form because there is no discussion of processing the signal in order to transmit the information via the Internet. As such, the Hata reference fails to obviate the deficiencies of the Chen reference in this regard, and the Chen reference and the Hata reference, taken alone or in hypothetical combination, do not disclose all the elements of claim 20.

Therefore, the Hata reference does not disclose communication between the transceiver and an access network unit over an undedicated public network, as set forth in claim 1, does not disclose communication over an undedicated public network between a base station and a controller, as set forth in claim 17, and does not disclose transmitting an information packet to an access network unit independent of a dedicated connection, as set forth in claim 20. Accordingly, the Hata reference does *not* obviate the deficiencies of the Chen reference.

As such, for at least the reasons set forth above, the Chen reference and the Hata reference, taken alone or in hypothetical combination fail to teach or suggest every feature of claims 1, 17 and 20. Accordingly, Applicants respectfully request withdrawal of the pending Section 103 rejection and allowance of these claims as well as all claims depending therefrom.

Improper Combination - Lack of Objective Evidence of Reasons to Combine

As described above, the Examiner combined the Chen and Hata references in rejecting independent claims 1, 17, and 20. However, the Examiner has not shown the requisite motivation or suggestion to modify or combine the Chen and Hata references to reach the present claims. As mentioned above, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so. *See In re Kahn*, 78

U.S.P.Q.2d 1329, 1335 (Fed. Cir. 2006). The Examiner must provide *objective evidence*, rather than subjective belief and unknown authority, of the requisite motivation or suggestion to combine or modify the cited references. *In re Lee*, 61 U.S.P.Q.2d. 1430 (Fed. Cir. 2002).

In the present rejection and in the cited references there is no objective evidence modify the Chen reference to produce the claimed subject matter. Specifically, as discussed in detail above, the Hata reference only discloses communication between a server 102 and a wireless base station 104 via the Internet. The Hata reference does *not*, however, disclose communication between a transceiver and a controller or access network unit via an undedicated network, as disclosed and claimed in the present application. Accordingly, Applicants request that the Examiner produce *objective evidence* of the requisite motivation or suggestion to combine the cited references or remove the foregoing rejection under 35 U.S.C. § 103.

Claims 6 and 7

As stated above, the Examiner rejected claims 6 and 7 as obvious over the Chen and Hata references in view of the Kowalski reference. Applicants respectfully submit that claims 6 and 7 are allowable based on their dependencies on claim 1, because the Kowalski reference does not cure the deficiencies described above with regard to the Chen and Hata references. For at least this reason, claims 6 and 7 are believed to be

allowable over the cited references. Thus, Applicants respectfully request withdrawal of the rejection of claims 6 and 7.

Claims 12-14

The Examiner rejected claims 12-14 as obvious over the Chen and Hata references in view of the Eilers reference. Applicants respectfully submit that claims 12-14 are allowable based on their dependencies on claim 1, because the Eilers reference does not cure the deficiencies described above with regard to the Chen and Hata references. For at least this reason, claims 12-14 are believed to be allowable over the cited references. Thus, Applicants respectfully request withdrawal of the rejection of claims 12-14.

Claims 15 and 16

As stated above, the Examiner rejected claims 15 and 16 as obvious over the Chen and Hata references in view of the Ketonen reference. Applicants respectfully submit that claims 15 and 16 are allowable based on their dependencies on claim 1, because the Ketonen reference does not cure the deficiencies described above with regard to the Chen and Hata references. For at least this reason, claims 15 and 16 are believed to be allowable over the cited references. Thus, Applicants respectfully request withdrawal of the rejection of claims 15 and 16.

Claim 22


As stated above, the Examiner rejected claim 22 as obvious over the Chen and Hata references in view of the Onweller reference. Applicants respectfully submit that claim 22 is allowable based on its dependency on claim 1, because the Onweller reference does not cure the deficiencies described above with regard to the Chen and Hata references. For at least this reason, claim 22 is believed to be allowable over the cited references. Thus, Applicants respectfully request withdrawal of the rejection of claim 22.

Conclusion

Applicants respectfully submit that all pending claims should be in condition for allowance. However, if the Examiner wishes to resolve any other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

Date: November 22, 2006



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